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Industrial Hygiene Services

Member AOAC, ASC, AIHA

WBE W2F5912535

Asbestos Survey Report

Simpson Timber Company
Property Acquisition - 11 Building

~~11 Building - Waterway Park (11)~~

♦ Building 3 (Pole Building)

♦ Kiln Building

~~11 Building - Waterway Park (11)~~

♦ Building 6 (43)

♦ Building 8

♦ Building 9

♦ Building 10

♦ Building 11

♦ Building 12

♦ Building 13

Prepared for

Mr. Mickey Prendes
Simpson Timber Company
801 Portland Avenue
Tacoma, Washington

Leading Environmental Compliance Consulting Into The 21st Century

**Industrial Hygiene and Environmental Compliance
Department**

**Industrial Hygiene Consulting Services
Asbestos Survey Report**

**Simpson Timber Company Property Acquisition
11 Buildings**

**Distribution Control No.: 99126.990308.01
Contract/Purchase Order No.: SA 3655**

NOTICE TO RECIPIENT

You have been issued a copy of ORION Environmental Services Asbestos Survey Report for Simpson Timber Company Property Acquisition for 11 buildings in Tacoma, Washington.

This report represents industrial hygiene findings relative to asbestos at the subject site for Simpson Timber Company. This report is considered privileged and confidential information and is solely intended for the use of Simpson Timber Company and their appointed representatives. Copying or distribution of this document without the express consent of ORION Environmental or Simpson Timber Company is prohibited.


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This report has been reviewed and is authorized for issue and use.

Effective Date: March 8, 1999



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Asbestos Abatement Information

Simpson Timber Company Property Acquisition

Buildings

Statement of Work

1.00 Introduction

The following information is provided for the purpose of describing the work to be performed under this contract. It is intended to provide a general overview of the project and to serve as a basis for the development of a detailed project plan.

The information provided in this Statement of Work is for informational purposes only. It is not intended to constitute a contract or to be used as a basis for the development of a contract.

The project is a Phase 1 asbestos survey of the Simpson Timber Company buildings. The survey is to be conducted by a qualified asbestos surveyor. The survey is to include a visual inspection of the buildings and the collection of samples for analysis.

2.00 Scope of Work

The work to be performed under this contract is a Phase 1 asbestos survey of the Simpson Timber Company buildings. The survey is to include a visual inspection of the buildings and the collection of samples for analysis.

2.01 2.01.01 Survey of Buildings and Commercial Buildings

2.02 2.02.01 Survey of Buildings

The survey of the buildings is to be conducted by a qualified asbestos surveyor. The survey is to include a visual inspection of the buildings and the collection of samples for analysis.

2.03 2.03.01 Contractor's Responsibility

2.04 2.04.01 Monitoring

The contractor shall provide daily air monitoring for its employees.

Air samples shall be collected from at least one employee per specific task using a specific method of removal and not deviating from that prescribed removal method throughout the removal process.

The Contractor shall provide daily area air monitoring.

B. Reporting

Within twenty-four (24) hours of sampling, the Contractor shall provide one of the above referenced sample cans to the Project Owner.

In the present study, we used a simple, sensitive, and high concentration-sensitive method to detect the presence of *Salmonella* in the fecal samples of patients with acute enteritis. The results of the present study showed that the sensitivity of the *Salmonella* detection method was 100% in the fecal samples of patients with acute enteritis. The specificity of the *Salmonella* detection method was 100% in the fecal samples of patients with acute enteritis. The results of the present study showed that the sensitivity of the *Salmonella* detection method was 100% in the fecal samples of patients with acute enteritis. The specificity of the *Salmonella* detection method was 100% in the fecal samples of patients with acute enteritis.

25-53405-1

1. Einleitung: Begrüßung der Teilnehmer, Zielsetzung der Veranstaltung, Überblick über den Ablauf.

Consistent with general findings, the current findings suggest that, for many children, the demands, benefits, and challenges of living in an improper home are associated with a higher probability of being in a poor health state.

[illegible]

04 Simpson Lumber Company Responsible

Upon importation, the contractor must ensure that inspection and analysis in the export inspection facility, and all related record-keeping for the presence of asbestos, is required. The inspection and analytical work will meet the requirements specified in these codes. If above is not applicable.

17. If the results of the inspection are satisfactory, within the presence of witnesses the inspector, together with the subject company, will sign the necessary documents for compliance with applicable regulations. After compliance is obtained, the Director's office will, only in the signature of the Director, or his authorized representative, proceed.

6. If the results of the inspection and analysis confirm that the suspect material is not detect for asbestos, the Project Owner will notify the Contractor in writing, so that work under this Contract can proceed.

PART 2 – Products

Not Used

PART 3 Execution

Not Used

ORION Environmental Services, Inc.

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OES

Industrial Hygiene Department Asbestos and Lead Consulting Services

**Asbestos Survey Report
Commercial Structure Building Demolition
Property Acquisition – 11 Buildings
ORION Project Number 99196**

Survey Location

- ♦ 300 Middle Water Way ♦ Middle Water Way Tin Building
- ♦ Building 3 (Pole) ♦ Building 6 ♦ Building 8 ♦ Building 9
- ♦ Building 10 ♦ Building 11 ♦ Building 12 ♦ Building 13
- ♦ Kiln Building

**Prepared for
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**Performed
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AHERA Building Inspector
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**Reviewed By
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Inspector's Accreditation

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Introduction

1.1 General

During the period of February 23 through March 5, 1999, ORION Environmental Services, as an asbestos consultant to Mr. Mickey Prendes of Simpson Timber Company, performed Asbestos Hazard Emergency Response Act (AHERA) building surveys of commercial structures scheduled for demolition. The purpose of these surveys were to ascertain if asbestos-containing materials existed at the following locations and its' salient areas:

- ◆ 300 Middle Waterway
- ◆ Middle Waterway Tin Building
- ◆ Building 3 (Pole Structure)
- ◆ Building 6
- ◆ Building 8
- ◆ Building 9
- ◆ Building 10
- ◆ Building 11
- ◆ Building 12
- ◆ Building 13
- ◆ Kiln Building

This survey of multiple structures was performed by Mr. Craig Thomas from ORION Environmental Services, Inc. Mr. Thomas is an accredited AHERA Building Inspector, Accreditation Number Argus Pacific 980658 – Expiration Date July 10, 1999.

This asbestos inspection report represents information that describes the type, condition and location of asbestos-containing materials (ACM) associated with building and components at the subject structure. This report may be used as a program-planning tool for all demolition activities scheduled at these locations. All ACM identified in this report must be handled in accordance with all applicable federal, state and local regulatory requirements. This inspection report may also be used in conjunction with any existing Operations and Maintenance Policy Manual for Asbestos-Containing Materials to insure minimal tenant and contractor exposure as well as ensuring compliance measures with Simpson Timber Company's management policy. All affected individuals should be trained to use this inspection report in conjunction with planned demolition so that these activities are carried out properly. This will prevent potential exposure to airborne asbestos fibers or the creation of an emergency abatement or clean-up operation.

The combined goals of sampling and visual assessments were as follows:

1. Identify ACM associated with each structure and document the condition, friability, location, and quantity of each identified material; and

2. Coordinate sample data information and observations obtained from the site visit into a report form, parts that will be incorporated into demolition plans or project specification, where applicable.

1.2 Inspection and Sampling Procedures

An initial site walk-through was conducted to familiarize the inspector with the structure. Coordination was made with Mr. Mickelson, Plant Engineer for Simpson Tacoma Kraft, for authorization to proceed and suspect homogeneous materials were selected for bulk sampling. The Inspector would try to find damaged areas or materials for collection, while the selection of area(s) remained unbiased for sampling. Depending upon the location of the suspect material, specific samples were collected in a non-abrasive manner, with emphasis placed on minimizing the potential fiber release during collection procedures. Inaccessible or concealed suspect materials were not sampled due to either location of the specific material or because excessive damage would be created trying to expose the material. Inaccessible locations or concealed suspect materials were noted accordingly and can be found in later sections of this report.

Samples were collected and placed into separate, sealed, unadulterated plastic bags. Each sample was individually numbered and sample information was entered onto a field data sheet. When possible, samples were collected from areas or materials previously damaged. Sample tools were decontaminated with amended water after each sample collection. The samples were delivered to a laboratory for analysis; each accompanied by a completed chain-of-custody form and field data sheets. Sample locations were recorded on plan drawings prepared for this purpose.

Suspect Materials were divided into three categories:

1. Surfacing Materials – ACM sprayed or troweled on surfaces (walls, ceilings, and structural members) for acoustical, decorative, thermal insulation or fireproofing purposes. Examples include plaster, popcorn-textured ceilings, skim coat textures, and structural fireproofing.
2. Thermal System Insulation – Insulation used to inhibit heat transfer or prevent condensation on pipes, boilers, tanks, ducts, and various other components of hot and cold water systems, and heating, ventilation, and air conditioning (HVAC) systems. Examples include pipe lagging, pipe wrap; block batt, and blanket insulation; cement and “muds”; and a variety of other products such as gaskets and ropes.
3. Miscellaneous Materials – Materials not classified under Surfacing Materials or Thermal System Insulation. Examples include floor tile, ceiling tile, roofing felt, concrete pipe (“transite”), outdoor siding and fabrics, glazing putty, wallboard and associated assembly components, various mastics, etc. such as floor tile, wallboard, ceiling tiles, and mastics.

Asbestos-containing materials were classified accordingly:

Friability	<ul style="list-style-type: none">➤ Friable➤ Non Friable
Potential for Disturbance	<ul style="list-style-type: none">➤ High➤ Moderate➤ Low
Disturbance Source	<ul style="list-style-type: none">➤ Air➤ Contact➤ Vibration➤ Water
Condition Assessment	<ul style="list-style-type: none">➤ Friable and non-friable material in good condition➤ Friable and non-friable material showing signs of isolated areas of damage (less than 10%)➤ Friable and non-friable materials with signs of isolated areas of damage (10 – 25%)➤ Friable and non-friable materials with areas of moderate to significant damage and loss of integrity➤ Highly friable and severely damaged

Friable materials are materials which can be crushed, pulverized, or reduced to powder by hand pressure. These materials were wetted with amended water prior to sampling to protect the inspector from potential exposure or accidental fiber release. At the inspector's discretion, personal protective equipment (PPE) was used as an added precaution.

Samples were collected using EPA guidelines for type of suspect material. Where practical, sample locations were selected using random sampling methods. Emphasis was placed on obtaining samples from each area where minimal damage would occur to the facility structure. Each sample was collected by carefully removing small portions in a non-abrasive manner. If possible, samples were collected from areas already damaged. A particular suspect material may be located in various separate places throughout the structure. The EPA does not require that these materials be sampled in each location. Suspect materials of the same type, age, appearance, have the same date of installation, and are sampled in accordance with AHERA requirements must provide statistically reliable data which can be extrapolated on all remaining non-sampled areas.

AHERA protocol determines the number of samples of each material to be collected, depending on its category and amount of material present. The goal of AHERA is to ensure statistically reliable data and it accomplishes this by requiring or suggesting a minimum number of samples to be collected, and in some cases, by using random

sampling techniques to determine sampling locations. However, in every case, AHERA relies on the judgment of the inspectors who are experienced in AHERA methodology and the type of facilities being inspected. For this facility, the following protocol was used in determining the number of suspect samples to collect:

Material Type	Quantity
Friable Surfacing Materials	
a. Homogeneous area equal to or less than 1000 Square Feet	3 Samples
b. Homogeneous area greater than 1000 SF but equal to less than 5000 SF	5 Samples
c. Homogeneous area greater than 5000 SF	7 Samples
Thermal System Insulation (TSI)	
a. Homogeneous area	3 Samples
b. Patched area if less than 6 linear or square feet	1 Sample
Friable Miscellaneous Materials – in a manner sufficient to determine if ACM	
Non-Friable Suspect Materials – in a manner sufficient to determine ACM	

Table 1.1 EPA Recommended Sampling Scheme

1.3 Method of Analysis

All samples were delivered to ORION Environmental Services, Inc., analytical laboratory in Federal Way, Washington, to be analyzed for the type and the content of asbestos. These samples were analyzed using Polarized Light Microscopy (PLM) Stain Dispersion Technique in accordance with EPA Method 600/R-93/116. Additional treatment and tests may have been used as required to define composition (e.g., ashing, extractions, chemical, etc.).

1.4 Inspection Limits

The commercial structures, located at the subject site (acquired by Simpson Timber Company) were inspected for visible and accessible asbestos containing materials. Areas or materials that were inaccessible were noted accordingly.

General History of Asbestos

2.1 General

Asbestos is a generic name given to a number of naturally occurring hydrated mineral silicates that possess a unique crystalline structure, are separable in fibers, and are non-combustible. The different types of asbestos are separated into two mineralogical categories termed Serpentine and Amphiboles. The fibrous asbestos minerals in the amphibole group are Actinolite, Amosite, Anthophyllite, Crocidolite and Tremolite. Amosite and Crocidolite are sometimes referred to as brown and blue asbestos. The only fibrous asbestos in the serpentine group is Chrysotile, sometimes referred to as white asbestos. It comprises more than 90 percent of all the asbestos that has been used in commercial products in the United States.

The various types of asbestos have been incorporated into an estimated 3,000 commercial products. The inherent physical characteristics such as resistance to heat and chemicals, abrasion resistance, insulating capabilities and high tensile strength along with low cost and availability, resulted in the widespread use of asbestos-containing materials. Asbestos was commonly used on steam pipes and boilers of ships during the early 1900s. It was used widely in American ships and shipyards in the 1940s and was expanded to include sprayed-on insulation materials in the 1950-1970s. Use of asbestos in the United States did not begin to decline until the 1973-1978 bans by the Environmental Protection Agency (EPA) on spray-applied and pre-molded friable building materials.

Any materials or products that contain one percent or more of the mineral by weight are regulated as containing asbestos.

2.2 Asbestos-Containing Products

To obtain asbestos for commercial use, asbestos ore is extracted from open pit or underground mines. The ore is crushed and the asbestos fibers are separated from the rock layers by vibrating screens and airlifting process. The fibers are bagged in bulk for incorporation into various products at manufacturing facilities or through on-site mixing. Asbestos-containing materials that are batch-mixed on the construction site, such as structural fireproofing, usually have a wider variation in percentage of asbestos content than those that are incorporated into manufactured products, such as floor tile. The type of material and method of production have a bearing on the number of samples that must be collected for a given suspect material in a building survey.

The following is a representative list of materials likely to contain asbestos

Asbestos Cement Insulating Panels

Insulation

Asbestos Wallboard	Thermal. Sprayed-on
Asbestos Insulating Panels	Fireproofing
Asbestos Chalkboards	
Roofing	Paints
Asphalt Saturated Asbestos Felt	Textured Coatings
Reinforced Asbestos Flashing Sheet	
Asbestos Base Felt	Taping Compounds
Asbestos Finishing Felt	
Flashing	Elevator Brake Shoes
Paint	Insulation, Plumbing
Sheet Metal Work	Piping Insulation
Plastic Cement	Pipe Gaskets
	Equipment Insulation
Membrane Waterproofing and Damproofing	Laboratories
Putty	Hoods
	Oven Gaskets
Fire Door Insulation	Gloves
	Bench Tops
Fire Dampers	Cooling Tower, Baffles and Fill
Insulation, HVAC	Valve Packing and Rope
Piping Insulation	
Boiler Block	Flooring
Breaching Insulation	Asphalt Tile
Boiler Wearing Surface	Vinyl Asbestos Tile
Gaskets	Vinyl Sheet Flooring
Duct-work Taping	Backing
Flexible Fabrics Joints (vibration dampening)	Mastic
Flue, Seam Taping	
Plaster	Ceiling Tile

2.3 Health Effects

The detrimental effect on the health of people exposed to asbestos fibers has been well documented. Studies have been conducted on laboratory animals and cell cultures to investigate the specific mechanism by which asbestos initiates or promotes disease. Similarly, studies of former asbestos-mill workers and insulators have provided a wealth of knowledge concerning the risk of disease among populations exposed to various concentrations of airborne asbestos fibers. Most controversy surrounding the health effects of asbestos is focused on low-level exposure to general building occupants.

There is little disagreement about the detrimental effects of occupational or high-level exposures to asbestos fibers.

Like any hazardous material, asbestos must first travel to the site where it can cause disease. The primary route of exposure for asbestos is through the air. There have been reports of asbestos warts due to asbestos fibers becoming imbedded in the skin; however, this appears to be a rare occurrence. There is also some concern that excessive exposure to asbestos through ingestion, such as asbestos fibers in drinking water, may lead to an increased rate of disease. Again, however, this has not been proven a significant route of entry leading to disease. The greatest concern is exposure through inhalation. Diseases in direct correlation from exposure to asbestos include Lung Cancer, Asbestosis, and Mesothelioma.

Statement of Inaccessibility for Concealed and Presumed Materials

All inaccessible or concealed materials that were not identified at the time the survey was performed are to be presumed asbestos containing and treated accordingly, unless proven non-asbestos containing by an accredited AHERA Building Inspector. This includes materials or areas that may be discovered during demolition activities. During the site visit, the following materials were believed to exist within the building and were determined inaccessible for sampling unless otherwise noted in the report:

1. **Pipe or Flange Gaskets** – This friable and/or non-friable suspect material may exist in the boiler room on return/supply hot water lines, and fire sprinkler push systems. The use as well as the age of the material itself will determine the difference between it being friable or non-friable. This suspect material may be concealed in other locations. This material was not sampled because destructive sampling would be required to expose the material.
2. **Pipe Thread Caulking (Plumber's Dope)** – This suspect material has a tendency to be friable and may exist throughout the structure wherever fittings are located, either visible or concealed. This suspect material was not sampled because destructive sampling would be required to expose the material, in addition to the material being potentially being concealed.
3. **Slip Sheeting** – This friable suspect material may exist under plywood siding or on sub-floors in vapor barrier form. This suspect material was not collected because destructive sampling would be required to expose the material.
4. **Fire Doors** – The interior of doors in critical locations (to include entry, exit, and unit doors) may contain a friable inner lining or a friable inner insulating material. This suspect material was not collected because destructive sampling would be required to expose the material. If fire doors exist, all inner materials are classified as friable.
5. **Valve Packing** – This suspect material has a tendency to be friable and may exist within valves located in boiler and mechanical rooms and in additional concealed areas. Destructive sampling would have been required to expose this material.

Due to the restriction of non-destructive sampling in occupied buildings, additional materials not listed in this section may be discovered and encountered during renovation and demolition. Discovered suspect materials must be presumed ACM until sample collection (by an AHERA Building Inspector) and subsequent analysis prove otherwise. All other suspect materials were documented as being accessed, noted, homogenized, and tested.

Conclusion

4.1 Limitations

This survey report was intended to describe the locations and conditions of ACM identified at structures acquired by Simpson Timber Company. ORION Environmental represents that our services are performed within the limits prescribed by applicable regulations and in a manner consistent with the level of care and skill ordinarily exercised by other professional consultants under similar circumstances. No other representation is made to the client, expressed or implied and no warranty or guarantee is included or intended.

4.2 Applicable Regulations

This asbestos survey complies with applicable federal, state and local regulations. These regulations include:

- Puget Sound Air Pollution Control Agency (PSAPCA) Regulation III, Article 4;
- 40 CFR 763 – Toxic and Hazardous Substances Control: Asbestos;
- OSHA 29 CFR 1926.1101; Asbestos in Construction
- Washington Administrative Code (WAC) 296.62.07721

This survey also satisfies regulatory criteria established by OSHA's Department of Labor (DOL) and Washington's Department of Labor and Industries (L&I) for identifying asbestos-containing materials associated with the structures for future demolition. A copy of this report may be submitted to the appropriate regulatory agencies as proof that a survey was performed prior to demolition activities. A copy of this report should also be given to the asbestos abatement contractor and general contractor for cost estimating purposes and be maintained on-site during any abatement or demolition activities. In addition, abatement contractors should perform a site visit to validate the location and difficulty of removal for any given material.

4.3 Exhibits

The remainder of this report consists of exhibits and attachments referencing the following information:

- ◆ Exhibit One – 300 Middle Waterway
- ◆ Exhibit Two – Pole Building
- ◆ Exhibit Three – Kiln Building
- ◆ Exhibit Four – Middle Waterway Tin Building

- ◆ Exhibit Five – Building 6
- ◆ Exhibit Six – Building 8
- ◆ Exhibit Seven – Building 9
- ◆ Exhibit Eight – Building 10
- ◆ Exhibit Nine – Building 11
- ◆ Exhibit Ten – Building 12
- ◆ Exhibit Eleven – Building 13
- ◆ Exhibit Twelve – Inspector's Accreditation

Each Exhibit for the referenced structures will contain the following information in attachments:

- ◆ **Attachment 1** – Site Information,
- ◆ **Attachment 2** – Suspect Material Inventory
- ◆ **Attachment 3** – Summary of Materials Found Positive
- ◆ **Attachment 4** – Statement of Materials Found Negative
- ◆ **Attachment 5** – Abatement Cost Estimates
- ◆ **Attachment 6** – Laboratory Hard Copy and Chain of Custody
- ◆ **Attachment 7** – Field Drawings

Site Information – 300 Middle Waterway

This single story 4,600 square foot commercial structure was wood framed on masonry foundation. Estimated construction date was around the 1930's with the north wing being the older part of the construction. The only know renovation was the conversion from steam heat to electric baseboard heating. The interior finishes were comprised of wallboard, carpeting, various patterns of vinyl sheeting and vinyl tiles, slip sheeting, ceiling tiles, wood paneling, and fiberboard paneling. The exterior was noted with wood siding, window glazing and window caulking, and multiple-layered composition roll down roofing, three tab roofing, and built up roofing. No suspect interior wall or attic insulation was identified. All visible plumbing appeared to be originally insulated. Incandescent lighting was noted in addition to 42 fluorescent light fixtures throughout the structure.



Inspection Summary of Suspect Materials

This section discusses inspection findings for homogeneous suspect asbestos-containing materials sampled. In accordance with standardized guidelines for sampling, thirty-eight (38) non-homogeneous suspect asbestos-containing materials were identified and collected for analyses. Material identification and descriptions are as follows:

Material Designation	Material Identification	Material Description
VS 1	Vinyl Sheeting 1	Brown and Gray Base Color; Broken Rock Pattern; Gray Felt Backing; Associated Tan Colored Mastic
VS 2	Vinyl Sheeting 2	Gray Base Color; Gray Felt Backing; Associated Brown Colored Mastic
VS 3	Vinyl Sheeting 3	Brown and Tan Base Color; Square Pattern; Gray Felt Backing; Associated Tan Colored Mastic
VS 4	Vinyl Sheeting 4	Brown and White Base Color; Pebble Pattern; Gray Felt Backing; Associated Tan Colored Mastic
VT 1	Vinyl Tile 1	9" x 9" Cut; Dark Brown Base Color; Red and Whit Streak Pattern; Associated Dark Colored Mastic
VT 2	Vinyl Tile 2	Brown Base Color; Uncut; Burlap Backing; Associated Dark Colored Mastic
VT 3	Vinyl Tile 3	12" x 12" Cut; Cream Base Color; Associated Dark Colored Mastic
VT 4	Vinyl Tile 4	Cream Base Color; Uncut; Burlap Backing; Associated with Drafting Table

Suspect Material Table

*Exhibit One – 300 Middle Waterway
Summary of Suspect Materials*

Material Designation	Material Identification	Material Description
VT 5	Vinyl Tile 5	9" x 9" Cut; Green Base Color; Dark Green and Yellow Streak Pattern; Associated Dark Colored Mastic
VT 6	Vinyl Tile 6	9" x 9" Cut; Gray Base Color; Associated Dark Colored Mastic
SS 1	Slip Sheeting 1	Felt Material; Tar Impregnated; Black Color; Associated Mastic; Floor Associated
SS 2	Slip Sheeting 2	Felt Material; Tar Impregnated; Black Color; No Mastic Associated; Floor Associated
SS 3	Slip Sheeting 3	Felt Material; Blue Gray Base Color; Floor Associated
SS 4	Slip Sheeting 4	Felt Material; Tar Impregnated; Black Color; Attic Associated
SS 5	Slip Sheeting 5	Silver Paper Outer Lining; Black Mastic Interior; Wall Associated
SS 6	Slip Sheeting 6	Felt Material; Tar Impregnated; Black Outer Color; Light Inner Color; Siding Associated
MA 1	Mastic 1	Tan Base Color; Brittle; Thin Application; Associated with Carpeting
MA 2	Mastic 2	Dark Brown Base Color; Brittle; Thin to Medium Thickness Application; Associated with Cove Base
MA 3	Mastic 3	Brown Base Color; Brittle; Thin Application; Associated with Cove Base
MA 4	Mastic 4	Brown Base Color; Brittle; Thin Application; Associated with Green Laminate with Sink
MA 5	Mastic 5	Brown Base Color; Thick Application; Hard; Glue Dot Form; Associated with Ceiling Tile

Suspect Material Table (continued)

*Exhibit One – 300 Middle Waterway
Summary of Suspect Materials*

Material Designation	Material Identification	Material Description
MA 6	Mastic 6	Brown Base Color; Brittle; Thin Application; Associated with Wood Paneling
MA 7	Mastic 7	Tan Base Color; Brittle; Thin Application; Associated with Wood Paneling
Misc. 1	Miscellaneous 1	Leveling Compound; Off White Base Color; Thin Application; Even Consistency; Brittle;
Misc. 2	Miscellaneous 2	Fiber Board; Pressed Wood Base; White Outer Color; Tan Inner Color;
Misc. 3	Miscellaneous 3	Sink Undercoating; Black Base Color
CT 1	Ceiling Tile 1	1' x 1' Cut; White Outer Color; Tan Inner Color; Worm Gouge Pattern
CT 2	Ceiling Tile 2	1' x 1' Cut; White Outer Color, Tan Inner Color; Regular Hole Circular Pattern
CT 3	Ceiling Tile 3	1' x 2' Cut; White Outer Color; Brown Inner Color; Nailed Application
WB 1	Wallboard Assembly 1	Skim Coat Surfacing; Joint Compound and Wallboard
WB 2	Wallboard Assembly 2	Wallboard; Brown/Gray Paper Encasement; Nailed Application
WG 1	Window Glazing 1	Tan Base Color; Hard Form; Medium Thickness Application
CA 1	Caulking 1	White Base Color; Pliable; Thin Laced Application
TSI 1	Thermal System Insulation 1	Aircell Pipe Insulation; Gray; Corrugated
TSI 2	Thermal System Insulation 2	Pipe Fitting Insulation; White Base Color; Mud; Magnesium Based Dilution

Suspect Material Table (continued)

*Exhibit One – 300 Middle Waterway
Summary of Suspect Materials*

Material Designation	Material Identification	Material Description
RM 1	Roofing Material 1	Core Sample; Multiple Layered Matrix; Roll Down and Built Up
RM 2	Roofing Material 2	Core Sample; Multiple Layered Matrix; Felt and Composition Shingles
RM 3	Roofing Material 3	Core Sample; Multiple Layered Matrix; Built Up

Suspect Material Table (continued)

From the 38 types of non-homogeneous suspect materials, forty-two (42) bulk samples (with layers identified) were collected and analyzed for asbestos. During the survey, the inspector determined that no other visible or accessible suspect materials existed on the interior or exterior of this structure.

Inspection Summary of Presumed or Materials Found Positive

Upon completion of the field investigation, review of field notes, and review of laboratory data, the following suspect materials that were identified, homogenized, and analyzed were found to contain asbestos:

Vinyl Sheeting 2 (VS 2) – Gray Base Color; Gray Felt Backing; Associated Brown Colored Mastic

This friable material (friability noted in the felt backing) was analyzed by the laboratory as containing 45% Chrysotile asbestos fibers in the felt backing. The associated mastic for this matrix was non-detect for containing asbestos. One sample of the vinyl sheeting and one sample of the associated mastic were collected.

Underneath carpeting, this material was found as a second layer flooring in Room 1 underneath a layer of non-asbestos containing vinyl sheeting (VS 1). This material was adhered to a wood substrate. This material was not identified in any other location of the structure.

Overall, the condition of this material was in satisfactory condition with cohesive properties and material integrity intact. Until demolition occurs, current potential disturbances are as follows:

- ◆ Air – Low
- ◆ Vibration – Low
- ◆ Contact – Low
- ◆ Water – Low

An estimated 160 square feet of the asbestos containing vinyl sheeting exists as noted. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Vinyl Sheeting 3 (VS 3) – Brown and Tan Base Color; Square Pattern; Gray Felt Backing; Associated Tan Colored Mastic

This friable material (friability noted in the felt backing) was analyzed by the laboratory as containing 25% Chrysotile asbestos fibers in the felt backing. The associated mastic for this matrix was non-detect for containing asbestos. One sample of the vinyl sheeting and one sample of the associated mastic were collected.

Exhibit One – 300 Middle Waterway
Summary of Materials Presumed or Materials Found Positive

This material was found in the following locations:

- ◆ Room 2b – 20 Square Feet
- ◆ Room 7b – 15 Square Feet
- ◆ Room 6a – 15 Square Feet
- ◆ Bath 1 – 105 Square Feet

This material, adhered to a wood substrate, may exist under carpeting in any of the locations as noted. This material was also noted underneath vinyl sheeting in room 1 and existed as a top layer flooring in closets. This material was not identified in any other location of the structure.

Overall, the condition of this material was in satisfactory condition with cohesive properties and material integrity intact. Until demolition occurs, current potential disturbances are as follows:

- ◆ Air – Low
- ◆ Vibration – Low
- ◆ Contact – Low
- ◆ Water – Low

An estimated 155 square feet of the asbestos containing vinyl sheeting exists in the locations mentioned. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Vinyl Tile 1 (VT 1) – 9" x 9" Cut; Dark Brown Base Color; Red and White Streak Pattern; Associated Dark Colored Mastic

These non-friable materials were analyzed by the laboratory as containing 7% Chrysotile asbestos fibers in the vinyl tile and 2% Chrysotile fiber in the associated mastic. One sample of the vinyl tile and one sample of the associated mastic were collected.

This material was found in the following locations:

- ◆ Room 2 – 520 Square Feet
- ◆ Hall 1 – 145 Square Feet
- ◆ Hall Bathroom – 30 Square Feet
- ◆ Hall 2 – 50 Square Feet

These materials are adhered to a non-asbestos containing vinyl tile (VT 2) and may exist under carpeting in any of the locations as noted. These materials were not identified in any other location of the structure.

Exhibit One – 300 Middle Waterway
Summary of Materials Presumed or Materials Found Positive

Overall, the condition of this material was in fair condition with some loss of cohesive properties and material integrity. Until demolition occurs, current potential disturbances are as follows:

Vinyl Tile

- ◆ Air – High
- ◆ Vibration – Low
- ◆ Contact – High
- ◆ Water – Moderate

Mastic

- ◆ Air - Low
- ◆ Vibration - Low
- ◆ Contact - Low
- ◆ Water - Low

An estimated 745 square feet of this asbestos containing vinyl tile and associated mastic exists in the locations mentioned. These materials will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Vinyl Tile 3 (VT 3) – 12" x 12" Cut; Cream Base Color; Associated Dark Colored Mastic

This non-friable material was analyzed by the laboratory as containing 3% Chrysotile asbestos fibers in the associated mastic. The vinyl tile was non-detect for containing asbestos. One sample of the vinyl tile and one sample of the associated mastic were collected.

This material was found in the Men's Room adhered to a wood substrate. This material was not identified in any other location of the structure.

Overall, the condition of this material was in good condition with cohesive properties and material integrity intact. Until demolition occurs, current potential disturbances are as follows:

- ◆ Air – Low
- ◆ Vibration – Low
- ◆ Contact – Low
- ◆ Water – Low

An estimated 40 square feet of this asbestos containing mastic exists in the location mentioned. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Vinyl Tile 5 (VT 5) – 9" x 9" Cut; Green Base Color; Dark Green and Yellow Streak Pattern; Associated Dark Colored Mastic

These non-friable materials were analyzed by the laboratory as containing 5% Chrysotile asbestos fibers in the vinyl tile and 3% Chrysotile fiber in the associated mastic. One sample of the vinyl tile and one sample of the associated mastic were collected.

Exhibit One – 300 Middle Waterway
Summary of Materials Presumed or Materials Found Positive

These materials were found in the following locations:

- ◆ Room 6 – 250 Square Feet
- ◆ Room 6a – 12 Square Feet
- ◆ Room 7 – 270 Square Feet
- ◆ Room 7a – 24 Square Feet
- ◆ Room 8 – 490 Square Feet
- ◆ Room 8a – 24 Square Feet
- ◆ Room 8b – 15 Square Feet
- ◆ Room 9 – 230 Square Feet
- ◆ Room 9a – 20 Square Feet
- ◆ Hall 4 – 210 Square Feet
- ◆ Bath 1 – 105 Square Feet
- ◆ Room 10 – 325 Square Feet
- ◆ Room 10a – 24 Square Feet

These materials, adhered to a wood substrate, may exist under carpeting in any of the locations as noted. These materials were not identified in any other location of the structure.

Overall, the condition of this material was in fair condition with some loss of cohesive properties and material integrity. Until demolition occurs, current potential disturbances are as follows:

<u>Vinyl Tile</u>	<u>Mastic</u>
◆ Air – High	◆ Air - Low
◆ Vibration – Low	◆ Vibration - Low
◆ Contact – High	◆ Contact - Low
◆ Water – Moderate	◆ Water - Low

An estimated 2,000 square feet of this asbestos containing vinyl tile and associated mastic exists in the locations mentioned. These materials will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Vinyl Tile 6 (VT 6) – 9" x 9" Cut; Gray Base Color; Associated Dark Colored Mastic

These non-friable materials were analyzed by the laboratory as containing 5% Chrysotile asbestos fibers in the vinyl tile and 2% Chrysotile fibers in the associated mastic. One sample of the vinyl tile and one sample of the associated mastic were collected.

These materials were found along the west wall of Room 8:

Exhibit One – 300 Middle Waterway
Summary of Materials Presumed or Materials Found Positive

These materials, adhered to a wood substrate in association and adjacent to VT 5 (reference VT 5 information). These materials were not identified in any other location of the structure.

Overall, the condition of this material was in fair condition with some loss of cohesive properties and material integrity. Until demolition occurs, current potential disturbances are as follows:

Vinyl Tile

- ◆ Air – High
- ◆ Vibration – Low
- ◆ Contact – High
- ◆ Water – Moderate

Mastic

- ◆ Air - Low
- ◆ Vibration - Low
- ◆ Contact - Low
- ◆ Water - Low

An estimated 10 square feet of this asbestos containing vinyl tile and associated mastic exists in the locations mentioned. These materials will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Mastic 2 (MA 2) – Dark Brown Base Color; Brittle; Thin to Medium Thickness Application; Associated with Cove Base

This non-friable material was analyzed by the laboratory as containing 5% Chrysotile asbestos fibers. One sample of this matrix was collected.

This material was found in the following locations:

- ◆ Room 2 – 30 LF
- ◆ Room 2b – 15 LF
- ◆ Hall 1 – 25 LF
- ◆ Men's Room – 22 LF
- ◆ Room 6 – 42 LF
- ◆ Room 6a – 11 LF
- ◆ Room 7 – 41 LF
- ◆ Room 7b – 12 LF
- ◆ Hall 3 – 50 LF
- ◆ Room 8 – 45 LF
- ◆ Room 9 – 50 LF
- ◆ Room 9a – 15 LF
- ◆ Hall 4 – 60 LF
- ◆ Bath 1 – 35 LF
- ◆ Room 45 LF

Exhibit One – 300 Middle Waterway
Summary of Materials Presumed or Materials Found Positive

This material adhered to wallboard, wood paneling, and plywood substrates were not located in any other location of the structure.

Overall, the condition of this material was in good condition with cohesive properties and material integrity intact. Until demolition occurs, current potential disturbances are as follows:

- ◆ Air – Low
- ◆ Vibration – Low
- ◆ Contact – Low
- ◆ Water – Low

An estimated 500 linear feet of this asbestos containing mastic exists in the locations mentioned. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Mastic 3 (MA 3) – Brown Base Color; Brittle; Thin Application; Associated with Cove Base

This non-friable material was analyzed by the laboratory as containing 5% Chrysotile asbestos fibers. One sample of this matrix was collected.

This material was found in Room 1 adhered to wallboard substrate. This material was not found in any other location of the structure.

Overall, the condition of this material was in good condition with cohesive properties and material integrity intact. Until demolition occurs, current potential disturbances are as follows:

- ◆ Air – Low
- ◆ Vibration – Low
- ◆ Contact – Low
- ◆ Water – Low

An estimated 85 linear feet of this asbestos containing mastic exists in the location mentioned. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Ceiling Tile 1 (CT 1) – 1' x 1' Cut; White Outer Color; Tan Inner Color; Worm Gouge Pattern

Mastic 5 (MA 5) – Brown Base Color; Thick Application; Hard; Glue Dot Form; Associated with Ceiling Tile 1

The friable ceiling tile was analyzed by the laboratory as containing 4% Chrysotile asbestos fibers. The associated non-friable mastic, after being homogenized, was found to contain 2% Chrysotile asbestos fibers. One sample of the ceiling tile and two samples of the associated mastic were collected.

These materials were found in the following locations:

- ◆ Room 1 – 275 Square Feet
- ◆ Hall 3 – 145 Square Feet
- ◆ Room 7 – 270 Square Feet
- ◆ Room 6 – 250 Square Feet
- ◆ Room 8 – 490 Square Feet
- ◆ Room 9 – 230 Square Feet
- ◆ Hall 4 – 210 Square Feet
- ◆ Room 10 – 325 Square Feet
- ◆ Room 10a – 24 Square Feet

This specific ceiling tiles, adhered to wallboard substrate, was not identified in any other location of the structure. The associated mastic was found to be in association with other asbestos containing ceiling (reference ceiling tile 2).

Overall, the condition of the ceiling tile was in fair condition with some loss of cohesive properties and material integrity. The condition of the mastic was found satisfactory. Until demolition occurs, current potential disturbances of the ceiling tile and the mastic are as follows:

Ceiling Tile 1

- ◆ Air – High
- ◆ Vibration – Moderate
- ◆ Contact – Low
- ◆ Water – High

Mastic 5

- ◆ Air (Low)
- ◆ Vibration - Moderate
- ◆ Contact – Low
- ◆ Water (High)

An estimated 2,220 square feet of these matrixes exist in the locations mentioned. These materials will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Ceiling Tile 2 (CT 2) – 1' x 1' Cut; White Outer Color; Tan Inner Color; Regular Hole Circular Pattern

Mastic 5 (MA 5) – Brown Base Color; Thick Application; Hard; Glue Dot Form; Associated with Ceiling Tile 2

The friable ceiling tile was analyzed by the laboratory as containing 4% Chrysotile asbestos fibers. The associated non-friable mastic, after being homogenized, was found to contain 2% Chrysotile asbestos fibers. One sample of the ceiling tile and two samples of the associated mastic were collected (reference MA 5 in association with Ceiling Tile 1)

These materials were found in the following locations:

- ◆ Room 2 – 490 Square Feet
- ◆ Hall 1 – 145 Square Feet
- ◆ Room 3 – 483 Square Feet
- ◆ Room 5 – 230 Square Feet

This specific ceiling tiles, adhered to wallboard substrate, was not identified in any other location of the structure. The associated mastic was found to be in association with other asbestos containing ceiling (reference ceiling tile 1).

Overall, the condition of the ceiling tile was in fair condition with some loss of cohesive properties and material integrity. The condition of the mastic was found satisfactory. Until demolition occurs, current potential disturbances of the ceiling tile and the mastic are as follows:

Ceiling Tile 2

- ◆ Air – High
- ◆ Vibration – Moderate
- ◆ Contact – Low
- ◆ Water – High

Mastic 5

- ◆ Air (Low)
- ◆ Vibration - Moderate
- ◆ Contact – Low
- ◆ Water (High)

An estimated 1,350 square feet of these matrixes exist in the locations mentioned. These materials will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Ceiling Tile 3 (CT 3) – 1' x 2' Cut; White Outer Color; Brown Inner Color; Nailed Application

This friable material analyzed by the laboratory as containing 2% Chrysotile asbestos fibers. One sample of the ceiling tile was collected.

These materials were found in the following locations:

Exhibit One – 300 Middle Waterway
Summary of Materials Presumed or Materials Found Positive

- ◆ Hall 2 – 48 Square Feet
- ◆ Hall Bathroom – 30 Square Feet
- ◆ Men's Room – 36 Square Feet
- ◆ Ladies Room – 36 Square Feet
- ◆ Room 2a – 24 Square Feet

This specific ceiling tile, nailed into ceiling joists, was not identified in any other location of the structure.

Overall, the condition of the ceiling tile was in fair condition with some loss of cohesive properties and material integrity. Until demolition occurs, current potential disturbances are as noted:

- ◆ Air – High
- ◆ Vibration – Moderate
- ◆ Contact – Low
- ◆ Water – High

An estimated 175 square feet of these matrixes exist in the locations mentioned. These materials will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Miscellaneous 3 (Misc. 3) – Sink Undercoating, Black Base Color

This non-friable material was analyzed by the laboratory as containing 10% Chrysotile asbestos fibers. One sample of this matrix was collected.

This material was found as a bottom sink coating Room 8b. This material was not found in any other location of the structure.

Overall, the condition of this material was in good condition with cohesive properties and material integrity intact. Until demolition occurs, current potential disturbances are as follows:

- ◆ Air – High
- ◆ Vibration – High
- ◆ Contact – High
- ◆ Water – High

An estimated one sink (bar size) containing this asbestos containing undercoating exists in the location mentioned. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Slip Sheeting 4 (SS 4) – Felt Material, Tar Impregnated; Black Color; Attic Associated

Slip Sheeting 6 (SS 6) – Felt Material, Tar Impregnated; Black Outer Color; Light Inner Color; Exterior Wall Associated

These non-friable materials were analyzed by the laboratory as with concentrations ranging between 3% to 5% Chrysotile asbestos fibers. One sample of each matrix was collected.

These materials were found throughout the attic space and underneath the exterior shiplap siding surrounding the building. These materials were not found in any other location of the structure. These material are not homogeneous to the floor associated slip sheeting.

Overall, the condition of these materials was good with cohesive properties and material integrity intact. Until demolition occurs, current potential disturbances are as follows:

- ◆ Air – High
- ◆ Vibration – Low
- ◆ Contact – Low
- ◆ Water – Low

An estimated 5,200 square feet of this asbestos containing slip sheeting exists in the locations mentioned. These materials will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Roofing Material 1 (RM 1) – Core Sample; Multiple Layered Matrix; Roll Down and Built Up

This non-friable multiple layered matrix was analyzed by the laboratory as containing 5% Chrysotile asbestos fibers within the middle layer. One core sample of this matrix was collected.

This matrix was found on the flat roof part of the North Wing.

Overall, the condition of this material was in good condition with cohesive properties and material integrity intact. Until demolition occurs, current potential disturbances are as follows:

- ◆ Air – High
- ◆ Vibration – High
- ◆ Contact – High
- ◆ Water – High

Exhibit One – 300 Middle Waterway
Summary of Materials Presumed or Materials Found Positive

An estimated 100 square feet of this asbestos containing core matrix exists in the location mentioned. Based on the location of the asbestos in the middle layer, it cannot be separated from the non-asbestos containing layers. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Roofing Material 2 (RM 2) – Core Sample; Multiple Layered Matrix; Felt and Composition Shingles

This non-friable multiple layered matrix was analyzed by the laboratory as containing asbestos fibers within the layers as follows:

- ◆ Felt (Top Layer) – No Asbestos Detected
- ◆ Composition (Second Layer) – 5% Chrysotile Fibers
- ◆ Felt (Third Layer) – 3% Chrysotile Fibers

One core sample of this matrix was collected. This matrix was the primary roof covering of the structure underneath cedar shake shingles.

Overall, the condition of this material was in good condition with cohesive properties and material integrity intact. Until demolition occurs, current potential disturbances are as follows:

- ◆ Air – High
- ◆ Vibration – High
- ◆ Contact – High
- ◆ Water – High

An estimated 4,500 square feet of this asbestos containing core matrix exists in the location mentioned. Based on the location of the asbestos in the second and third layer, it cannot be separated from the non-asbestos containing layer. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Roofing Material 3 (RM 3) – Core Sample; Multiple Layered Matrix; Built Up

This non-friable multiple layered matrix was analyzed by the laboratory as containing asbestos fibers within the layers as follows:

- ◆ Built Up (Top Layer) – 20% Chrysotile Fibers
- ◆ Built Up (Second Layer) – 35% Chrysotile Fibers
- ◆ Built Up (Third Layer) – No Asbestos Detected
- ◆ Built Up (Fourth Layer) – No Asbestos Detected

Exhibit One – 300 Middle Waterway
Summary of Materials Presumed or Materials Found Positive

One core sample of this matrix was collected. This matrix was the primary roof covering of a salient building north of the main structure

Overall, the condition of this material was in good condition with cohesive properties and material integrity intact. Until demolition occurs, current potential disturbances are as follows:

- ♦ Air – High
- ♦ Vibration – High
- ♦ Contact – High
- ♦ Water – High

50 DEC 10/25/01
An estimated ~~4,500~~ square feet of this asbestos containing core matrix exists in the location mentioned. Based on the location of the asbestos in the first and second layer, it cannot be separated from the non-asbestos containing layers. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Thermal System Insulation 1 (TSI 1) – Aircell Pipe Insulation; Gray Wrap; Corrugated

This friable material was analyzed by the laboratory as containing concentration ranging between 25% and 35% Chrysotile asbestos fibers. Two samples of this matrix were collected.

This material was found through the crawl space area on domestic or steam water lines. This material was also found in the debris form on the soil. It was noted that this material may exist in penetrations into above flooring feeding into radiators that use to exist in the structure, as well as into the foundation.

Overall, the condition of this material was in poor condition with loss of cohesive properties and material integrity. Until demolition occurs, current potential disturbances are as noted:

- ♦ Air – High
- ♦ Vibration – Moderate
- ♦ Contact – Low
- ♦ Water – High

An estimated 1,350 linear feet of visible material exists in the location mentioned. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Thermal System Insulation 2 (TSI 2) – Pipe Fitting Insulation; White Base Color; Mud; Magnesium Based Dilution

This friable material was analyzed by the laboratory as containing 45% Chrysotile asbestos fibers. One sample of this matrix was collected.

This material was found through the crawl space area in association with domestic or steam water lines. This material was also found in the debris form on the soil. It was noted that this material may exist in penetrations into above flooring feeding to radiators that use to exist in the structure, as well as into the foundation.

Overall, the condition of this material was in poor condition with loss of cohesive properties and material integrity. Until demolition occurs, current potential disturbances are as noted:

- ◆ Air – High
- ◆ Vibration – Moderate
- ◆ Contact – Low
- ◆ Water – High

An estimated 20 visible fittings exist in the location mentioned. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Fire Door 1 (FD 1) – Encased Material; Door Insulation

This friable material was analyzed by the laboratory as containing 6% Chrysotile asbestos fibers. One sample of this matrix was collected.

This material was found through in a salient building associated with the safe area.

Overall, the condition of this encased material was good condition. Until demolition occurs, current potential disturbances are as noted:

- ◆ Air – High
- ◆ Vibration – Moderate
- ◆ Contact – Low
- ◆ Water – High

One door exists in the location mentioned. This material will be impacted resulting from demolition activities and must be handled and removed in accordance with federal, state, and local regulations.

Inspection Statement of Materials Found Negative

Upon completion of the field investigation, review of field notes, and review of laboratory data, all other suspect materials identified and in association with this structure were non-detect for asbestos.

Abatement Cost Estimates

The following information is cost estimates for budgetary purposes relative to the abatement of the materials identified as asbestos containing. These estimates include all abatement processes ranging from mobilization through disposal. Abatement costs do not include permitting, third party air monitoring or oversight tasks.

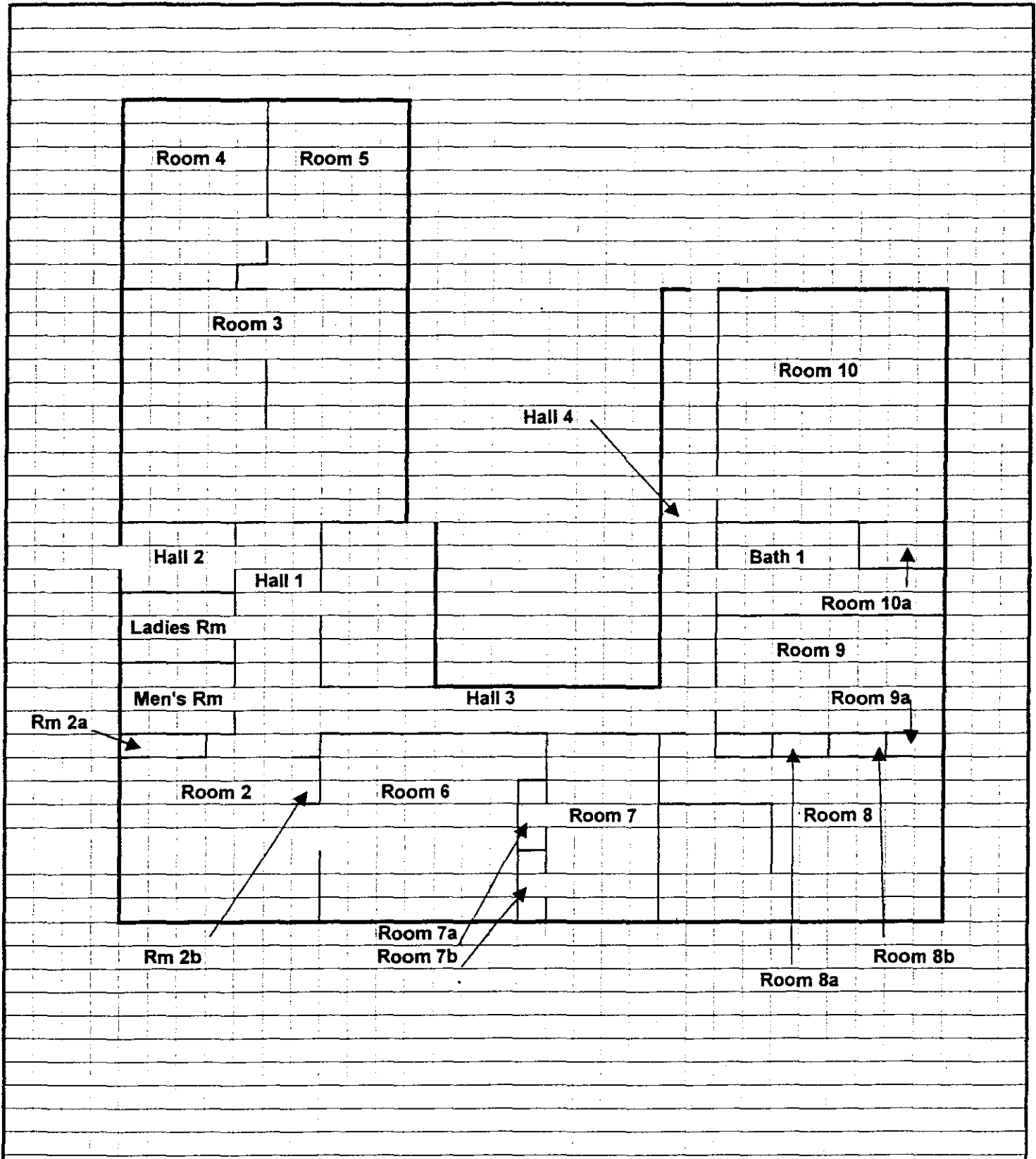
Total Building Materials

Material ID	Estimated Quantity	Estimated Unit Price	Total
Vinyl Sheeting 2	160 Square Feet	\$4.00	\$640.00
Vinyl Sheeting 3	155 Square Feet	\$4.00	\$620.00
Vinyl Tile 1	745 Square Feet	\$1.50	\$1,117.50
Vinyl Tile 3	40 Square Feet	\$1.50	\$60.00
Vinyl Tile 5	2,000 Square Feet	\$1.50	\$3,000.00
Vinyl Tile 6	10 Square Feet	\$1.50	\$15.00
Mastic 2	500 Linear Feet	\$2.00	\$1,000.00
Mastic 3	85 Linear Feet	\$2.00	\$170.00
Ceiling Tile 1 with Mastic 5	2,220 Square Feet	\$3.00	\$6,660.00
Ceiling Tile 2 with Mastic 5	1,350 Square Feet	\$3.00	\$4,050.00
Ceiling Tile 3	175 Square Feet	\$3.00	\$525.00
Slip Sheeting 4	5,200 Square Feet	\$2.00	\$10,400.00
Roofing Material 1	100 Square Feet	\$1.75	\$175.00
Roofing Material 2	4,500 Square Feet	\$1.75	\$7,875.00
Roofing Material 3	50 Square Feet	\$1.75	\$87.50

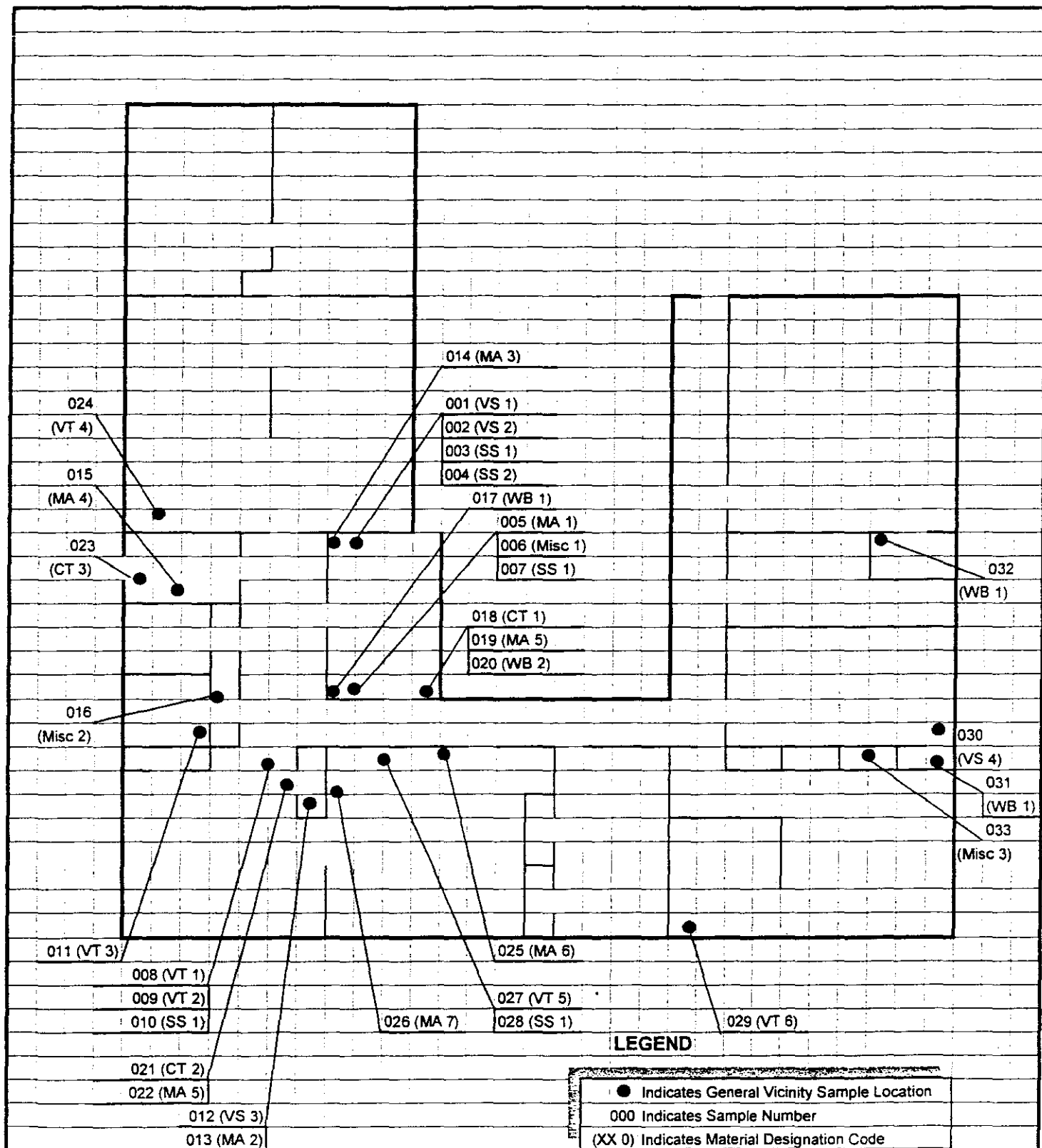
*Exhibit One – 300 Middle Waterway
Abatement Cost Estimates*

Material ID	Estimated Quantity	Estimated Unit Price	Total
Thermal System Insulation 1	1,350 Linear Feet	\$10.00	\$13,350.00
Thermal System Insulation 2	20 Fittings	\$18.00	\$360.00
Fire Door 1	1 Each	\$50.00	\$50.00

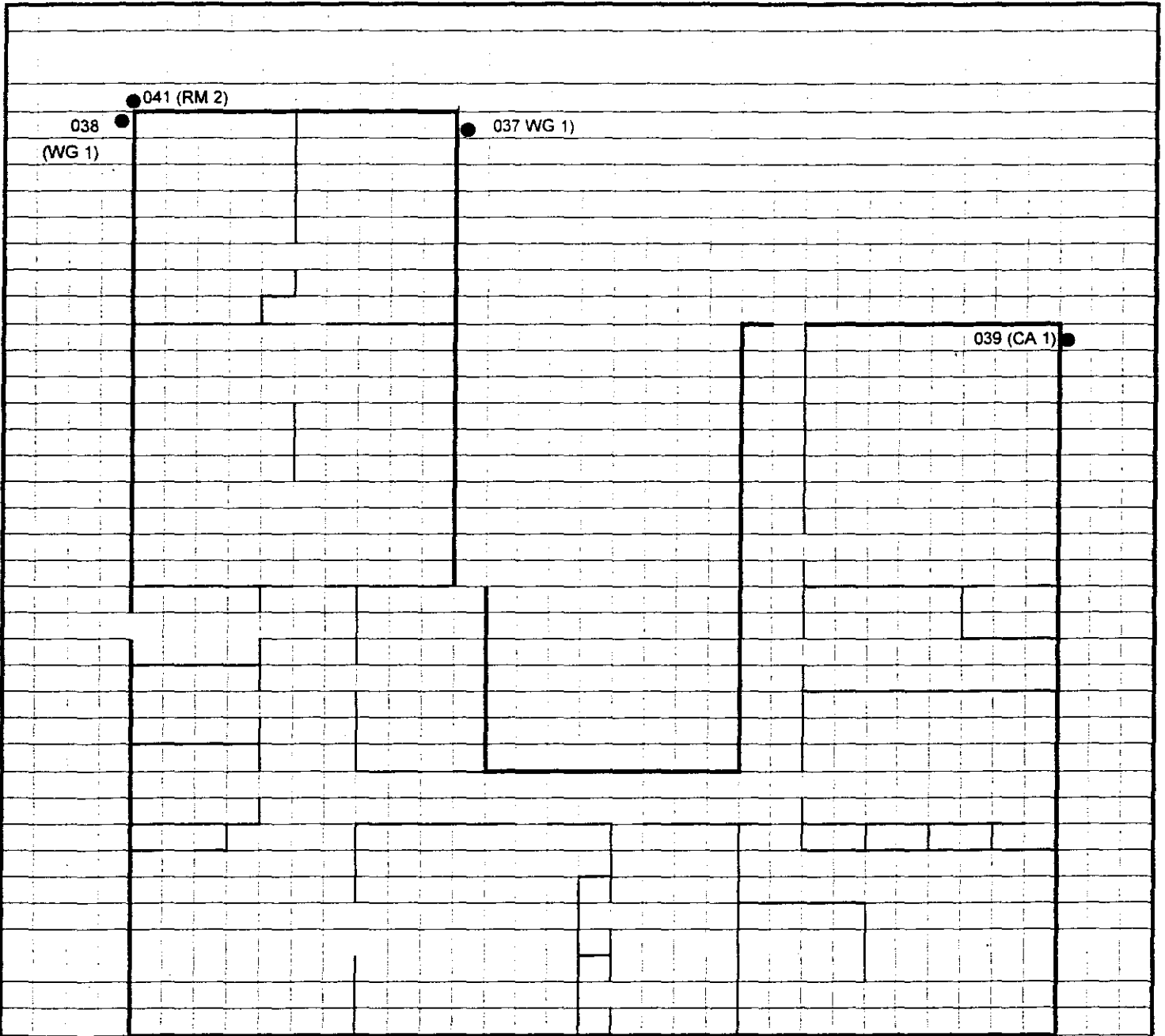
Estimated Total: \$50,115.00



Building Number 300 Middle Waterway		Location or Area Utilization Office Building Room Identification		Direction North ←
Drawn By Craig Thomas	Project Number 99196	Date March 5, 1999	Time 0900 hrs	



Building Number		Location or Area Utilization		Direction North ←
300 Middle Waterway		Office Building Interior Sample Location		
Drawn By	Project Number	Date	Time	
Craig Thomas	99196	March 5, 1999	0900 hrs	



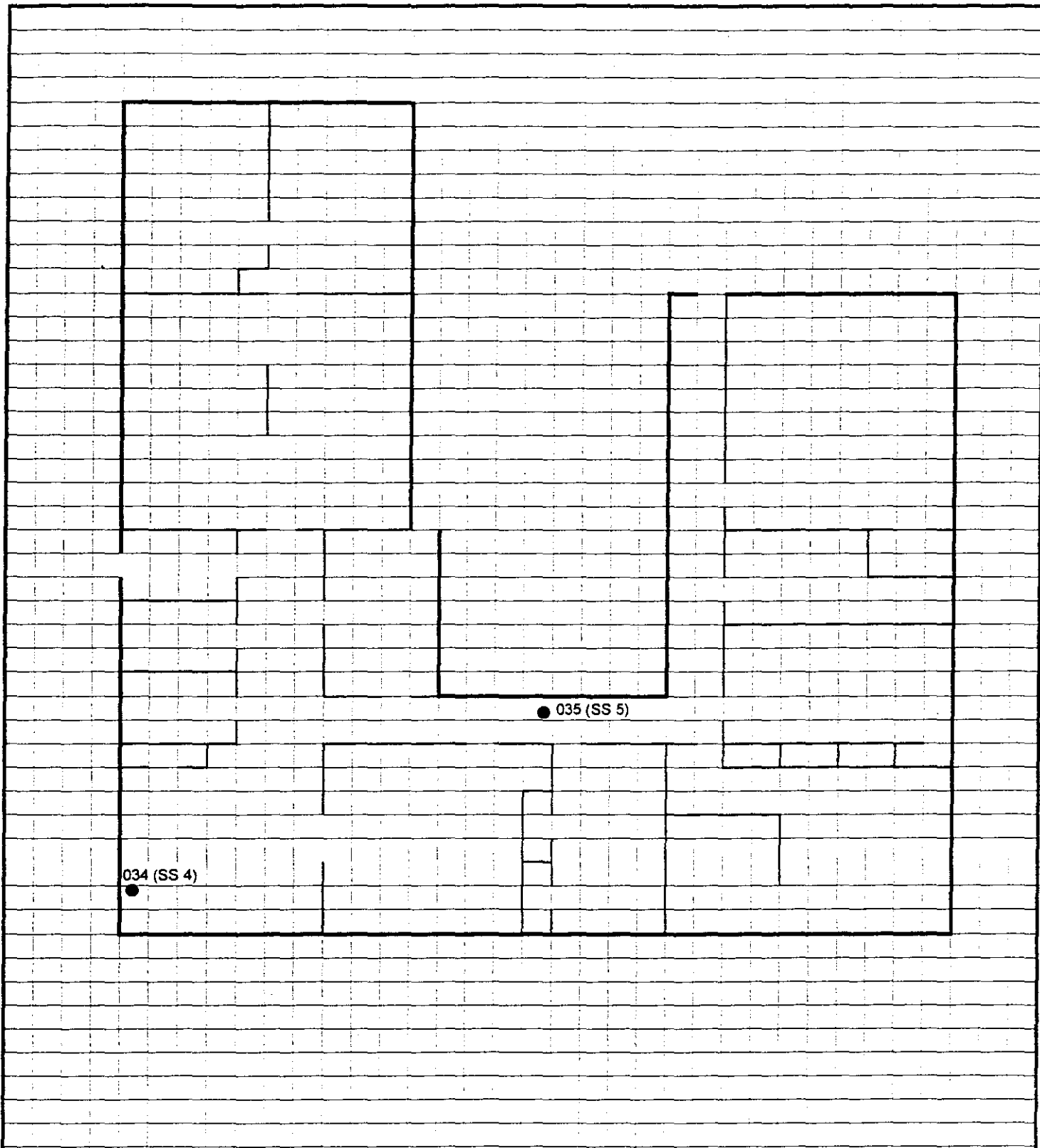
LEGEND

● Indicates General Vicinity Sample Location
000 Indicates Sample Number
(XX 0) Indicates Material Homogeneity Code

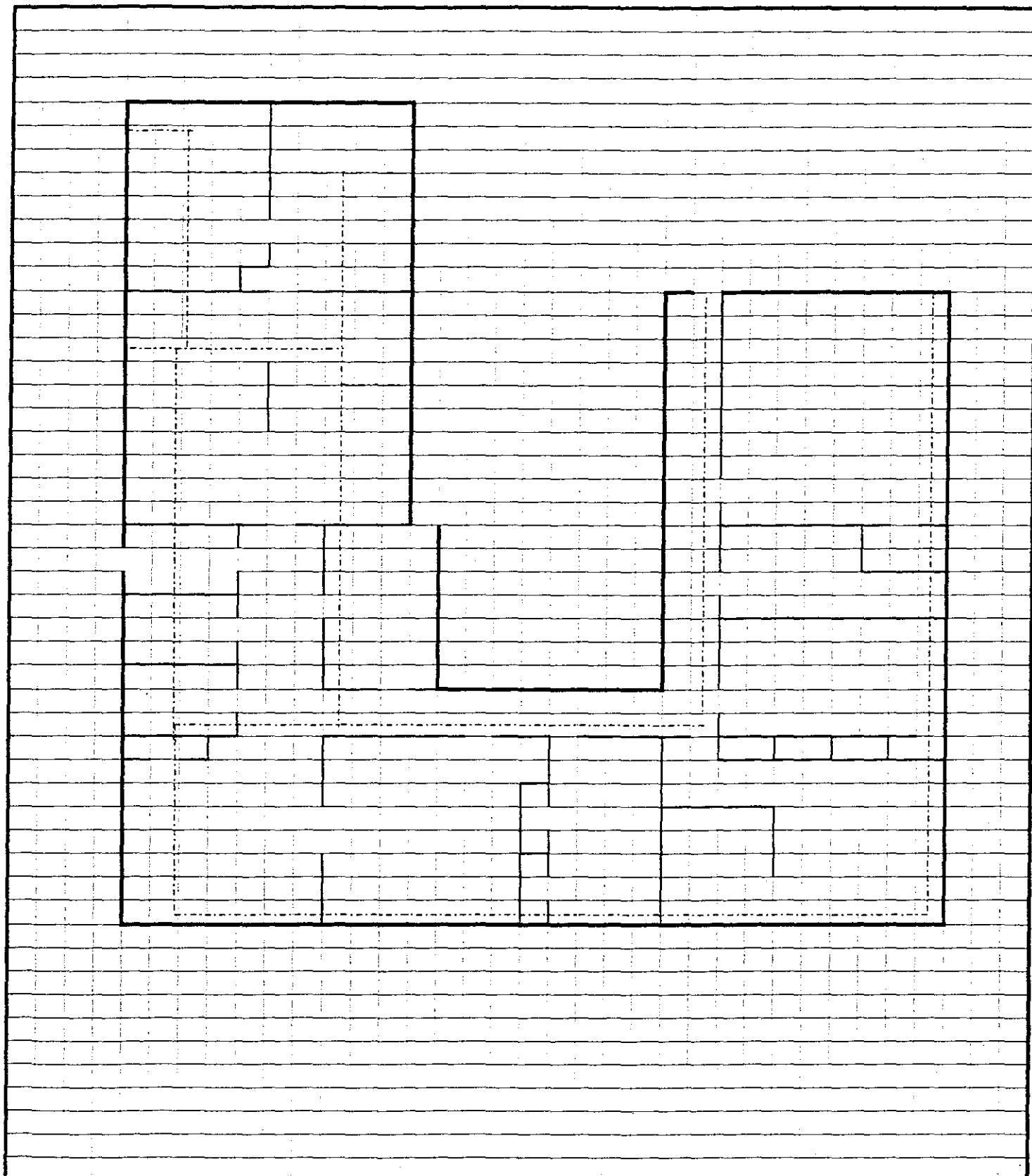
NOTES

1. Sample 040 (RM 1) Collected on Flat Roof at North Wing
2. Sample 043 (RM 3) Collected on Concrete North of North Wing

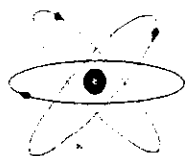
Building Number	Location or Area Utilization			Direction North
300 Middle Waterway	Office Building Exterior Sample Location			←
Drawn By	Project Number	Date	Time	
Craig Thomas	99196	March 5, 1999	0900 hrs	



Building Number		Location or Area Utilization		Direction North ←
300 Middle Waterway		Office Building Attic Sample Location		
Drawn By		Project Number	Date	Time
Craig Thomas		99196	March 5, 1999	0900 hrs



Building Number	Location or Area Utilization		Direction North
300 Middle Waterway	Office Building Crawl Space Pipe Location (Estimated)		←
Drawn By	Project Number	Date	
Craig Thomas	99196	March 5, 1999	Time 0900 hrs



ORION Environmental Services, Inc.,

34004 9th Avenue South ♦ Building A, Suite 5 ♦ Federal Way, Washington 98003

Phone Seattle - (253) 874-8118 ♦ Tacoma (253) 952-6717 ♦ Facsimile (253) 927-4714

PLM TEST REPORT

EPA Method 600/R-98/116

Client: Simpson Timber Company

801 Portland Avenue

Tacoma, WA 98401

Attn: Mickey Prendes

Site Location: 300 Middle Waterway

Date: March 2, 1999

Page 1 of 7

Invoice 99196

Date Received: February 25, 1999

<u>CLIENT NUMBER</u>	<u>ORION NUMBER</u>	<u>STEREO SCOPE EXAM</u>	<u>SAMPLE TREATMENT</u>	<u>ASBESTOS %</u>	<u>TYPE</u>	<u>OTHER FIBERS</u>
300-001(a) Room one	0225-01(a)	Vinyl Sheeting Brown & Gray Homogeneous	Ash	ND	-	-
300-001(b) Room one	0225-01(b)	Gray Felt Backing Homogeneous	-	ND	-	Cellulose
300-001(c) Room one	0225-01(c)	Tan Mastic Assoc. w/300-001(a) Homogeneous	Chloroform	ND	-	Cellulose
300-002(a) Room one	0225-02(a)	Vinyl Sheeting Gray Homogeneous	Ash	ND	-	-
300-002(b) Room one	0225-02(b)	Gray Felt Backing Homogeneous	-	45	Chrysotile	Cellulose
300-002(c) Room one	0225-02(c)	Mastic Assoc. w/300-002(a) Homogeneous	Chloroform	ND	-	Cellulose
300-003 Room one	0225-03	Slip Sheeting Black w/ Assoc. Mastic Homogeneous	Chloroform	ND	-	Cellulose
300-004 Room one	0225-04	Slip Sheeting Black Homogeneous	-	ND	-	Cellulose
300-005 Room one	0225-05	Tan Carpet Mastic Homogeneous	Chloroform	ND	-	Cellulose
300-006 Room one	0225-06	Leveling Compound Homogeneous	-	ND	-	Cellulose



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PLM TEST REPORT

EPA Method 600/R-98/116

Client: Simpson Timber Company

801 Portland Avenue

Tacoma, WA 98401

Attn: Mickey Prendes

Site Location: 300 Middle Waterway

Date: March 2, 1999

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300-007 Room one	0225-07	Slip Sheeting Blue/Gray Homogeneous	-	ND	-	Cellulose
300-008(a) Room two	0225-08(a)	Carpet Mastic Homogeneous	Chloroform	ND	-	Cellulose
300-008(b) Room two	0225-08(b)	Vinyl Tile Dark Brown Homogeneous	Ash	7	Chrysotile	-
300-008(c) Room two	0225-08(c)	Black Mastic Assoc. w/300-008(a) Homogeneous	Chloroform	2	Chrysotile	Cellulose
300-009 Room two	0225-09	Vinyl Tile w/Burlap & Assoc. Mastic Non-Separable	Ash	ND	-	Cellulose
300-010 Room two	0225-10	Slip Sheeting Black w/ Assoc. Mastic Non-Separable	Ash	ND	-	Cellulose
300-011(a) Room two	0225-11(a)	Vinyl Tile Cream Homogeneous	Ash	ND	-	-
300-011(b) Room two	0225-11(b)	Black Mastic Assoc. w/300-011(a) Homogeneous	Chloroform	3	Chrysotile	Cellulose
300-012(a) 2-B	0225-12(a)	Vinyl Sheeting Brown & Tan Homogeneous	Ash	ND	-	-
300-012(b) 2-B	0225-12(b)	White Felt Backing Homogeneous	-	25	Chrysotile	Cellulose



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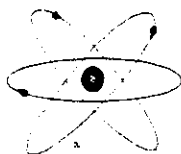
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300-012(c) 2-B	0225-12(c)	Tan Mastic Assoc. w/300-012(a)	Chloroform	ND	-	Cellulose
300-013 2-B	0225-13	Cove Base Mastic Brown Homogeneous	Chloroform	5	Chrysotile	-
300-014 Room one	0225-14	Cove Base Mastic Brown Homogeneous	Chloroform	5	Chrysotile	-
300-015 Hall 2	0225-15	Laminate Mastic Brown Homogeneous	Chloroform	ND	-	Cellulose
300-016 Bath Hall	0225-16	Fiberboard Homogeneous	Ash	ND	-	Cellulose
300-017(a)	0225-17(a)	Skim Coat Homogeneous	-	ND	-	Cellulose
300-017(b)	0225-17(b)	Wallboard Homogeneous	-	ND	-	Cellulose
300-018	0225-18	Ceiling Tile Homogeneous	Ash	4	Chrysotile	Cellulose
300-019 Hall 2	0225-19	Brown Mastic Assoc. w/Ceiling Homogeneous	Chloroform	ND	-	Cellulose
300-020 Room one	0225-20	Wallboard Homogeneous	-	ND	-	Cellulose
300-021 Room two	0225-21	Ceiling Tile Homogeneous	Ash	4	Chrysotile	Cellulose



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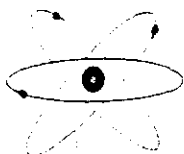
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300-022 Room two	0225-22	Brown Mastic Assoc. w/ Ceiling Homogeneous	Chloroform	2	Chrysotile	Cellulose
300-023 Hall two	0225-23	Ceiling Tile Homogeneous	Ash	2	Chrysotile	Cellulose
300-024 Room three	0225-24	Vinyl Tile Cream Homogeneous	Ash	ND	-	Cellulose
300-025 Room six	0225-25	Wood Panel Mastic Brown Homogeneous	Chloroform	ND	-	Cellulose
300-026 Hall three	0225-26	Wood Panel Mastic Tan Homogeneous	Chloroform	ND	-	Cellulose
300-027(a) Room six	0225-27(a)	Carpet Mastic Homogeneous	Chloroform	ND	-	Cellulose
300-027(b) Room six	0225-27(b)	Vinyl Tile Green w/Streaks Homogeneous	Ash	5	Chrysotile	-
300-027(c) Room six	0225-27(c)	Mastic Assoc. w/300-027(a) Homogeneous	Chloroform	3	Chrysotile	Cellulose
300-028 Room six	0225-28	Slip Sheeting Black w/ Assoc. Mastic Non-Separable	Ash	ND	-	Cellulose
300-029(a) Room eight	0225-29(a)	Carpet Mastic Tan Homogeneous	Chloroform	ND	-	Cellulose



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300-029(b) Room eight	0225-29(b)	Vinyl Tile Gray Homogeneous	Ash	5	Chrysotile	-
300-029(c) Room eight	0225-29(c)	Mastic Assoc. w/300-029(a) Homogeneous	Chloroform	2	Chrysotile	Cellulose
300-030(a) Room nine	0225-30(a)	Vinyl Sheeting Brown & White W/Gray Felt Backing Non-Separable	Ash	ND	-	-
300-030(b) Room nine	0225-30(b)	Tan Mastic Assoc. w/300-030(a) Homogeneous	Chloroform	ND	-	Cellulose
300-031 9-A	0225-31	Wallboard Homogeneous	-	ND	-	Cellulose
300-032(a) 10-A	0225-32(a)	Skim Coat Homogeneous	-	ND	-	Cellulose
300-032(b) 10-A	0225-32(b)	Wallboard Homogeneous	-	ND	-	Cellulose
300-033 8-B	0225-33	Sink Coat Black Homogeneous	Chloroform	10	Chrysotile	Cellulose
300-034 Attic	0225-34	Slip Sheeting Black Felt w/Asphalt Homogeneous	Ash	5	Chrysotile	Cellulose
300-035 Attic	0225-35	Slip Sheeting Silver Homogeneous	Ash	ND	-	Cellulose



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300-036 Exterior	0225-36	Slip Sheeting Black Homogeneous	Ash	3	Chrysotile	Cellulose
300-037 Exterior	0225-37	Window Glazing Homogeneous	Ash	ND	-	-
300-038 Exterior	0225-38	Window Glazing Homogeneous	Ash	ND	-	-
300-039 Exterior	0225-39	Caulking Homogeneous	Ash	ND	-	-
300-040(a) Exterior	0225-40(a)	Roofing 1 st Layer Homogeneous	Ash	ND	-	Cellulose Fiberglass
300-040(b) Exterior	0225-40(b)	Roofing 2 nd Layer Homogeneous	Ash	5	Chrysotile	Cellulose Fiberglass
300-040(c) Exterior	0225-40(c)	Roofing 3 rd Layer Homogeneous	Ash	ND	-	Cellulose Fiberglass
300-041(a) Exterior	0225-41(a)	Felt Homogeneous	Ash	ND	-	Cellulose Fiberglass
300-041(b) Exterior	0225-41(b)	3-Tab Roofing Homogeneous	Ash	5	Chrysotile	Cellulose
300-041(c) Exterior	0225-41(c)	Felt Homogeneous	Ash	3	Chrysotile	Cellulose
300-042(a) Exterior	0225-42(a)	Roofing Core 1 st Layer Homogeneous	Ash	20	Chrysotile	Cellulose



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300-042(b) Exterior	0225-42(b)	Roofing 2 nd Layer Homogeneous	Ash	35	Chrysotile	Cellulose
300-042(c) Exterior	0225-42(c)	Roofing 3 rd Layer Homogeneous	Ash	ND	-	Cellulose Fiberglass
300-042(d) Exterior	0225-42(d)	Roofing 4 th Layer Homogeneous	Ash	ND	-	Cellulose Fiberglass
300-043 Crawl Space	0225-43	Pipe Insulation Homogeneous	-	25	Chrysotile	Cellulose
300-044 Crawl Space	0225-44	Pipe Insulation Homogeneous	-	45	Chrysotile	Cellulose
300-045 Crawl Space	0225-45	Pipe Insulation Homogeneous	-	35	Chrysotile	Cellulose
300-46	0225-46	Pipe Insulation Homogeneous	-	6	Chrysotile	Cellulose Fiberglass

Dup: Laboratory QA/QC Duplicate; M: Mastic; ((a), (b), (c), etc.): Sample Layers, numbered from front to back.
Comments: For layered samples, each component has been analyzed separately. Disclaimers: PLM has been known to miss asbestos in a small percentage of samples that contain asbestos. Thus, negative PLM results cannot be guaranteed. This report may only be reproduced in full with written approval of Orion Laboratories.

By:

Donna McNeal
→ Donna McNeal

Laboratory Director

Member: AOAC, ACS, AIHA

Site Information – Tin Building

This 1,200 square foot structure is primarily of metal construction over a masonry slab. Estimated construction date was not determined. No known renovations were identified. No insulation was associated with this structure.

The inspector made the determination that no suspect materials existed with this structure.

